

Patent Application
NC 84,352

Amendments to the Specification:

Please replace the paragraph at page 3, line 14, with the following rewritten paragraph:

--The Sellers et al USP 3,768,990 discloses an optical element having transparency in the visible and infrared ~~wave-lengths~~ wavelengths that is made by heating at an elevated temperature a composition having sub-micron particle size of magnesium oxide and aluminum oxide having uniformly mixed therethrough 0.2-4 % by weight of powdered LiF. It is believed that optical and mechanical properties of the Seller's optical element are negatively impacted by the inhomogeneous presence of substantial amount of LiF. This leads to microstructural regions that are highly porous and other microstructural regions that exhibit exaggerated grain growth, all of which lead to inferior optical and mechanical properties. This has prevented the use of spinel in practical applications since the Seller's patent issued in 1973. Furthermore, it is believed that the atomic concentrations of lithium and fluorine will be greater than about 1000 ppm and 100 ppm, respectively, due to the fact that LiF is well known to react with alumina, which ~~Seller's~~ Sellers uses as a starting powder.--